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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,027	06/05/2000	Martin Cieslak	CISCP 139	8527

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EXAMINER
KANG, PAUL H

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/588,027	CIESLAK ET AL.
	Examiner	Art Unit	
	Paul H. Kang	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 November 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 June 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-11 and 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Heddaya et al., US Pat. No. 6,205,481 in view of Ganesh et al., US Pat. No. 6,347,087 B1.

2.   As to claims 1, 16, 20, 21, 22 and 23, Heddaya teaches the invention substantially as

claimed. Heddaya teaches a computer-implemented method for routing data traffic in a network

having a plurality of network layers including an application layer, physical, data link, and

network layers, the method comprising:

receiving redirected data traffic with a network cache (Heddaya, col. 3, line 23 – col. 5,

line 22).

However, Heddaya does not explicitly teach selecting one of a plurality of routing

options for the data traffic with reference to information associated with the network cache, the

application layer, or outside of the physical, data link, and network layers; and routing the data

traffic according to the selected routing option.

In the same field of endeavor, Ganesh teaches teach selecting one of a plurality of routing

options for the data traffic with reference to information associated with the network cache, the

application layer, or outside of the physical, data link, and network layers; and routing the data

traffic according to the selected routing option (Ganesh, col. 1, lines 14-60 and col. 2, line 58 –

col. 4, line 7).

It would have been obvious to one having ordinary skill in the art at the time the

invention was made to have incorporated the routing options as taught by Ganesh, into the

networked cache system of Heddaya for the purpose of routing frames based on data content in

addition to destination addresses.

3.   As to claim 2, Heddaya-Ganesh teaches the method wherein the data traffic has been

redirected from an original destination according to a caching protocol (Heddaya, col. 3, line 23

– col. 5, line 22).

4.   As to claim 3, Heddaya-Ganesh teaches the method wherein the data traffic comprises a

request from a source platform to a destination platform (Heddaya, col. 3, line 23 – col. 5, line

22).

5.   As to claim 4, Heddaya-Ganesh teaches the method wherein the data traffic comprises a

response to a request, the request being from a source platform to a destination platform

(Heddaya, col. 3, line 23 – col. 5, line 22).

6.   As to claim 5, Heddaya-Ganesh teaches the method further comprising parsing the

information associated with the application layer (Ganesh, col. 1, lines 14-60 and col. 2, line 58 –

col. 4, line 7).

7.   As to claims 6 and 7, Heddaya-Ganesh teaches the method wherein the information

comprises a URL including suffixes associated with the data traffic (Heddaya, col. 5, line 60 –

col. 6, line 50; Ganesh, col. 1, lines 14-60 and col. 2, line 58 – col. 4, line 7).

8.   As to claims 8-10, Heddaya-Ganesh teaches the method wherein parsing the information

comprises determining whether the suffix associated with the URL indicates one of a plurality of

MIME types comprising *.gif, *.jpg, *.pdf, *.mpX, *.htm, and ascii or binary data objects

(Ganesh, col. 1, lines 14-60 and col. 2, line 58 – col. 4, line 7).

9.   As to claim 11, Heddaya-Ganesh teaches the method wherein selecting one of the

plurality of options comprises setting one of a plurality of socket options for the data traffic

(Ganesh, col. 3, line 1 – col. 4, line 67).

10.   As to claims 17 and 18, Heddaya-Ganesh teaches the method wherein the information

relate to whether a data object associated with the data traffic is cacheable, and comprises a

forced load (Ganesh, col. 1, lines 14-60 and col. 2, line 58 – col. 4, line 7).

11.   As to claim 19, Heddaya-Ganesh teaches a computer program product comprising a

computer readable medium having computer program instructions stored therein for

implementing the method of claim 16 (Heddaya, col. 3, line 23 – col. 5, line 22; Ganesh, col. 1,

lines 14-60 and col. 2, line 58 – col. 4, line 7).

12.   As to claims 24 and 25, Heddaya-Ganesh teaches a method wherein the selecting of the

plurality of routing options for the data traffic is based on relative network resource expense of

data traffic types or wherein the application layer information correlates to a relative size of an

object that the request seeks (Heddaya, col. 7, line 64 – col. 8, line 49).

13.   Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya-

Ganesh as applied above, and further in view of Dillon, US Pat. No. 6,016,388.

14.   As to claim 12, Heddaya-Ganesh teach the invention substantially as claimed. However,

Heddaya-Ganesh do not teach the method wherein the plurality of socket options include a first

link and a second link, the first link socket option being selected for a first type of a data traffic

and the second link socket option being selected for a second type of data traffic.

     In the same field of endeavor, Dillon teaches said method wherein the plurality of socket

options include a first link and a second link, the first link socket option being selected for a first

type of a data traffic and the second link socket option being selected for a second type of data

traffic (Dillon, col. 1, line 14 – col. 2, line 32).

     It would have been obvious to one having ordinary skill in the art at the time the

invention was made to have incorporated socket options as taught by Dillon into the system of

Heddaya-Ganesh for the purpose of enabling a more efficient use and application of the various

communication channels.

15.   As to claim 13, Heddaya-Ganesh-Dillon teaches the method wherein the first and second

links comprise land and satellite links, respectively (Dillon, col. 1, line 14 – col. 2, line 32).

16.   As to claim 14, Heddaya-Ganesh-Dillon teaches the method wherein the first and second

types of data comprise ascii and binary data, respectively (Dillon, col. 1, line 14 – col. 2, line 32;

Ganesh, col. 1, lines 14-60 and col. 2, line 58 – col. 4, line 7).

17.   As to claim 15, Heddaya-Ganesh-Dillon teaches a computer program product comprising

a computer readable medium having computer program instructions stored therein for

implementing the method of claim 1 (Heddaya, col. 3, line 23 – col. 5, line 22; Ganesh, col. 1,

lines 14-60 and col. 2, line 58 – col. 4, line 7).

Response to Arguments

18.   Applicant's arguments filed November 3, 2004 have been fully considered but they are

not persuasive. The applicants argued in substance that the prior art of record "does not teach or

suggest routing with reference to application layer information. Instead, *Ganesh* et al. merely

discloses application layer information as it relates to the protocol in which nodes communicate,

which allows the nodes to transmit and receive network frames. (See column 4, lines 35-37)

Although *Ganesh* et al. discloses a content-based forwarding logic for routing frames between

nodes via a switching device, the content-based forwarding logic is only based on the contents of

the frame. (See column 1, lines 6-10; column 6, lines 38-57)...To further elaborate, the content-

based forwarding logic includes offset/mask forwarding filters. 'Each filter guarantees the ability

to match a 64-bit word placed on any bit boundary within a desired number of bytes such as the

first 256 bytes of a frame, or within any L3 payload therein...In essence, _Ganesh_ et al. merely

teaches content-based routing in reference to Data Link Layer (i.e. L2) information, which is in

the lower network layers." See Remarks, page 8.

The examiner respectfully disagrees with the applicants' interpretation of the prior art of

record. The prior art, specifically _Ganesh_, does not merely teach routing based on Data Link

Layer information, i.e. specific to the protocols used such as ISDN, Ethernet. The prior art also

teaches content based routing based on source and destination addresses, i.e. HTTP, SMB and

DNS systems (See Ganesh, col. 4, lines 1-53). HTTP, SMB and DNS for instance are well

known to be Layer 7 information which provide standardized services to applications and

provide interface to end-user processes. Further, the disclosure in Ganesh, as far as it references

Layer 2 or Layer 3 headers, is not limited to those specific header. Ganesh specifically states

"any other layer header" may be used (See Ganesh, col. 3, lines 1-67).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

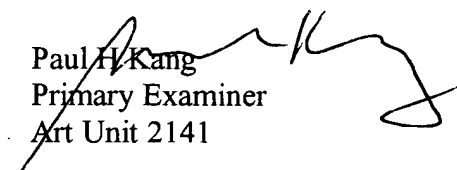MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Paul H. Kang whose telephone number is (571) 272-3882. The

examiner can normally be reached on 9 hour flex. First Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul H. Kang
Primary Examiner
Art Unit 2141